Ch, 1

Selectives properties of X-ray

- Short wave Length
- Selective Penetration and absorption Power
- Produce Image
- Produce Light on Fluorescence Screen
- have a damage Effect

التاريخ:

موضوع الدرس:

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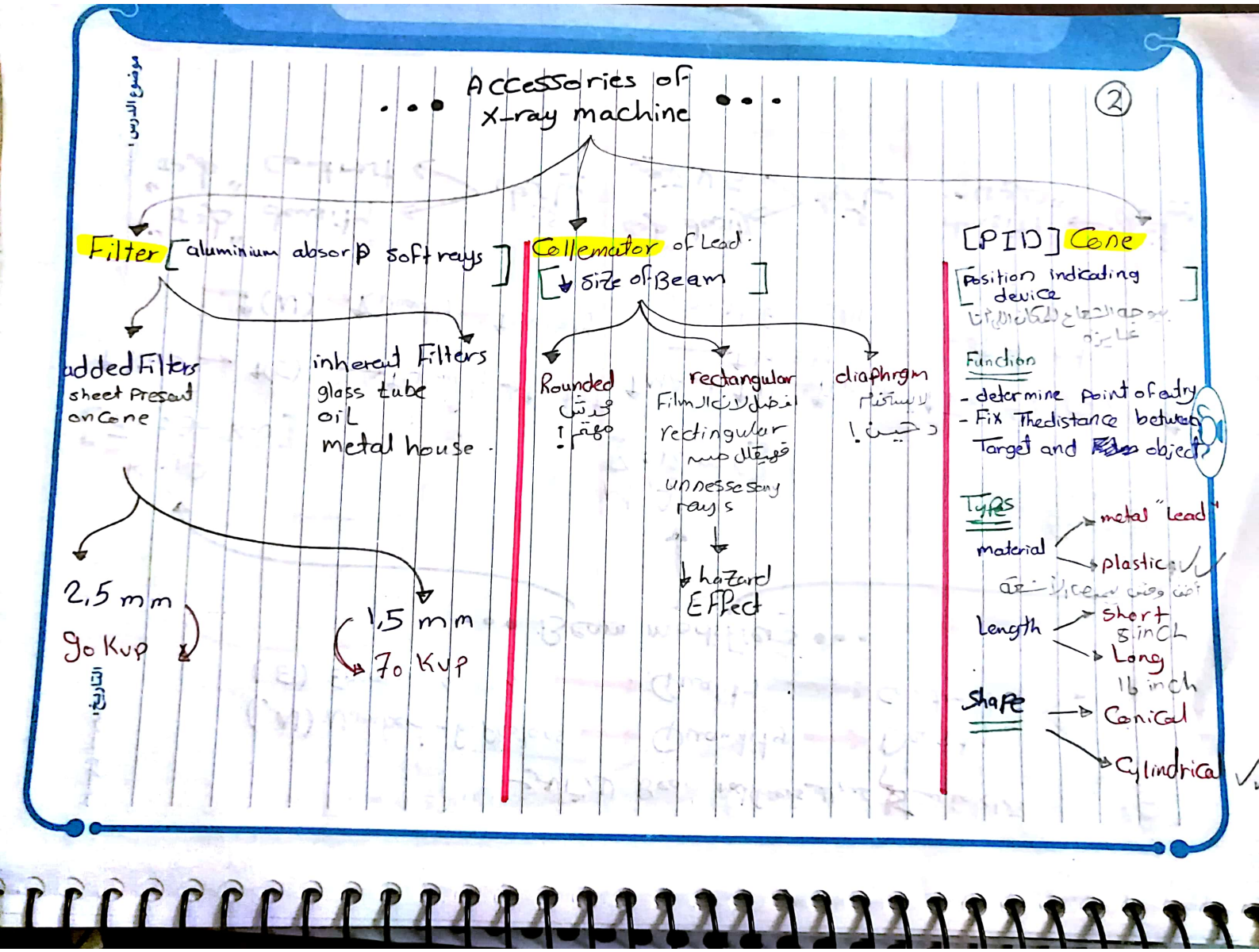

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قبل ما نتكلم عن الـ Beam modifiers لازم نعرف

(N) Number of Photons → Quantity → Density

(E) Energy ↓ " → Quality → Contrast

... Beam modifiers ...

KVP
[70 : 90 K.V]

↑ KVP → ↑(E) → ↑Quality → ↑Contrast

↑ KVP → ↑(N) → ↑Quantity → ↑density

بيأثر على density "طردي"

بيأثر على Contrast "طردي"

MA
[8 : 12 mA]

↑MA → ↑N → ↑Quantity → ↑density

بيأثر على density "طردي"

بيأثر على E لا تتغير

المجال E لا تتغير

Exposure Time

↑Time → ↑N → ↑Quantity → ↑density

بيأثر على density "طردي"

التاريخ:

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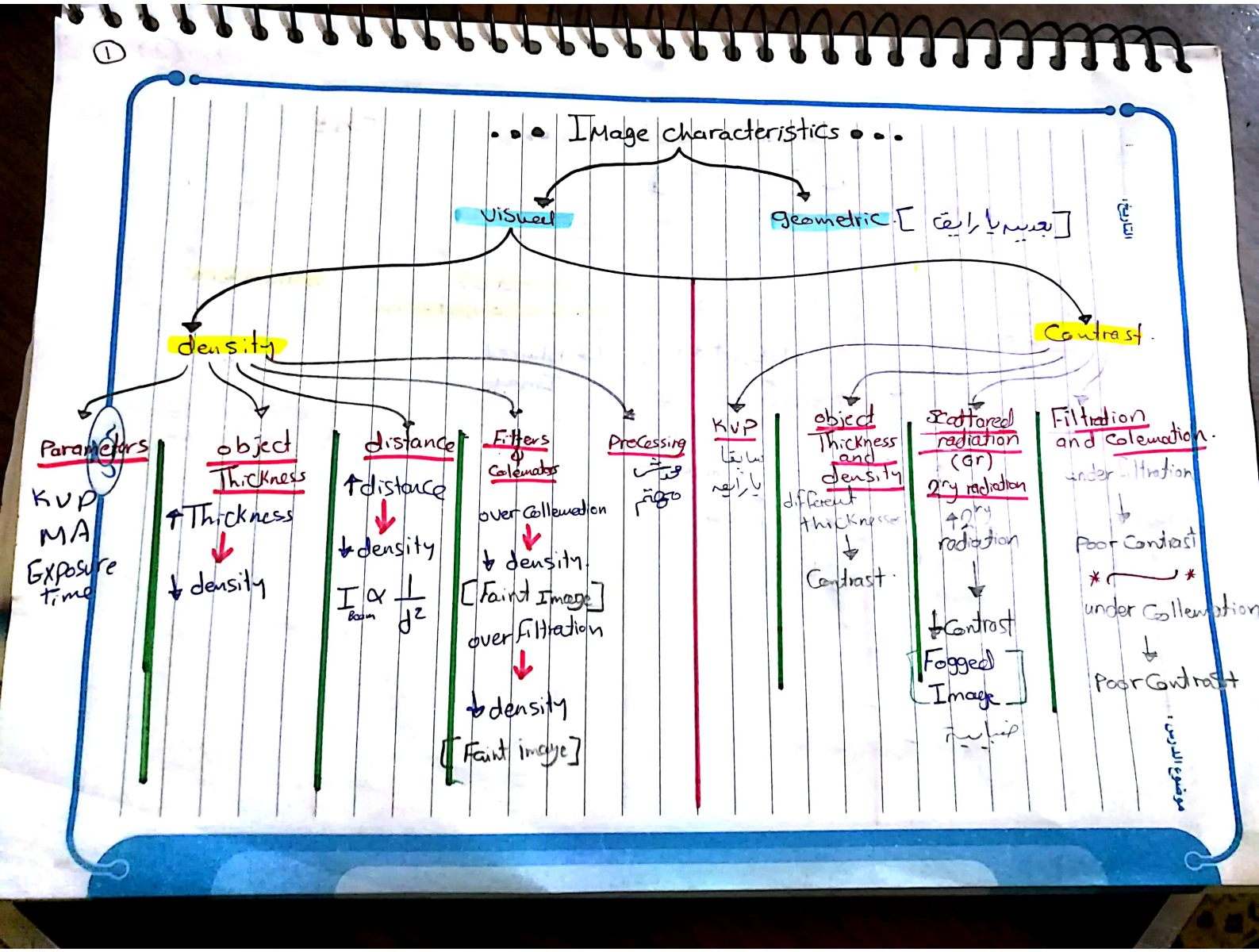

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موضوع الدرس:

... Geometric Characteristics ...

Ch:

[Sharpness]

Focal spot "Target" size

↓ size → ↑ Sharpness

So Target is Beveled

- effective Focal spot: 1Cm
- actual Focal spot: 3Cm

Distance

↑ Target object distance

↓

↑ sharpness

2ry rays بقلل تأثير ال

↑ object Film distance

↓

↓ sharpness

movement of "Film - object - arm"

↳ Blurred Image.

Binumbra

object ... ظل ...

... ة ... ، ... ة ... ، ... ة ...

Sharpness ... بتكون ...

... قليل ... ريح

التاريخ:

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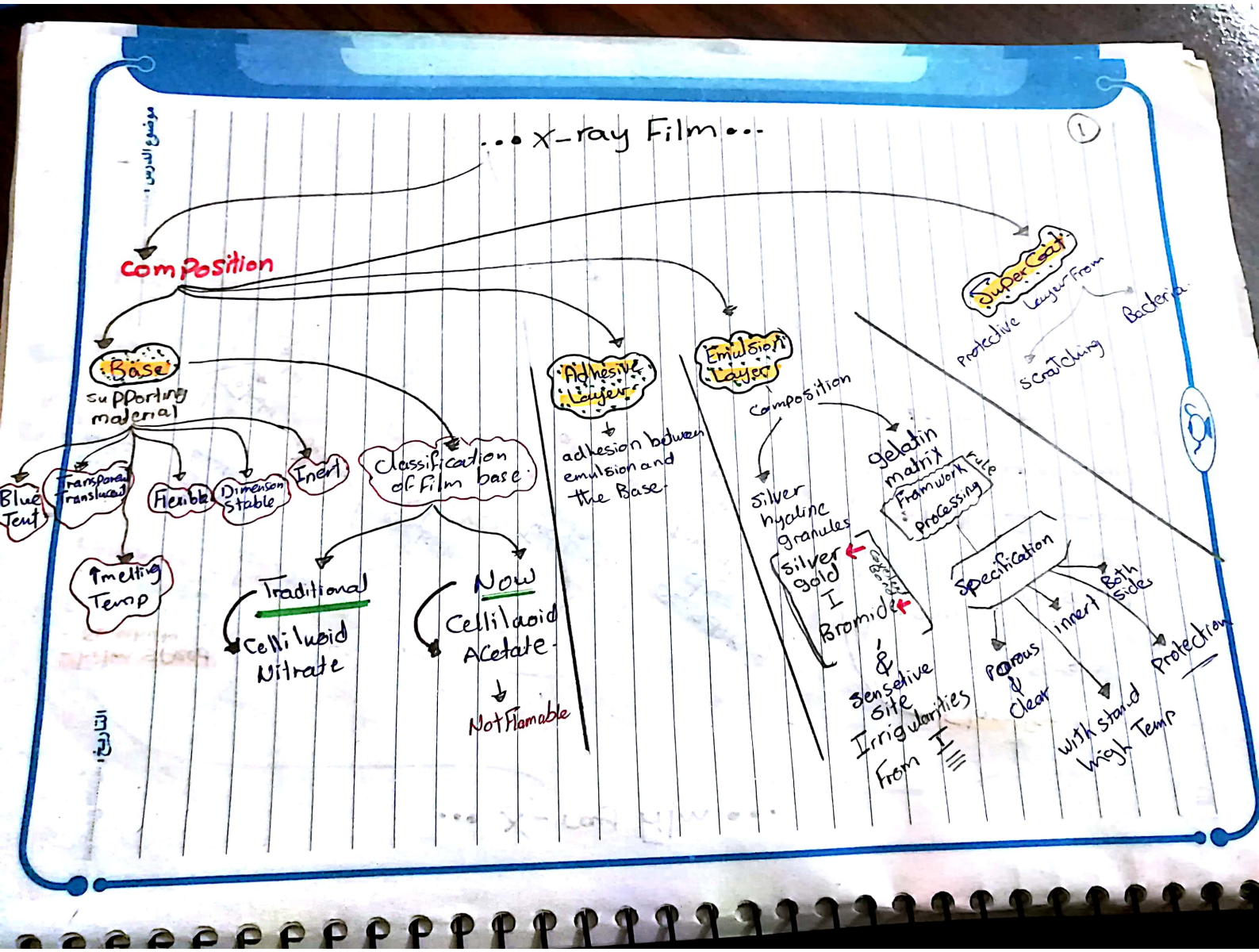

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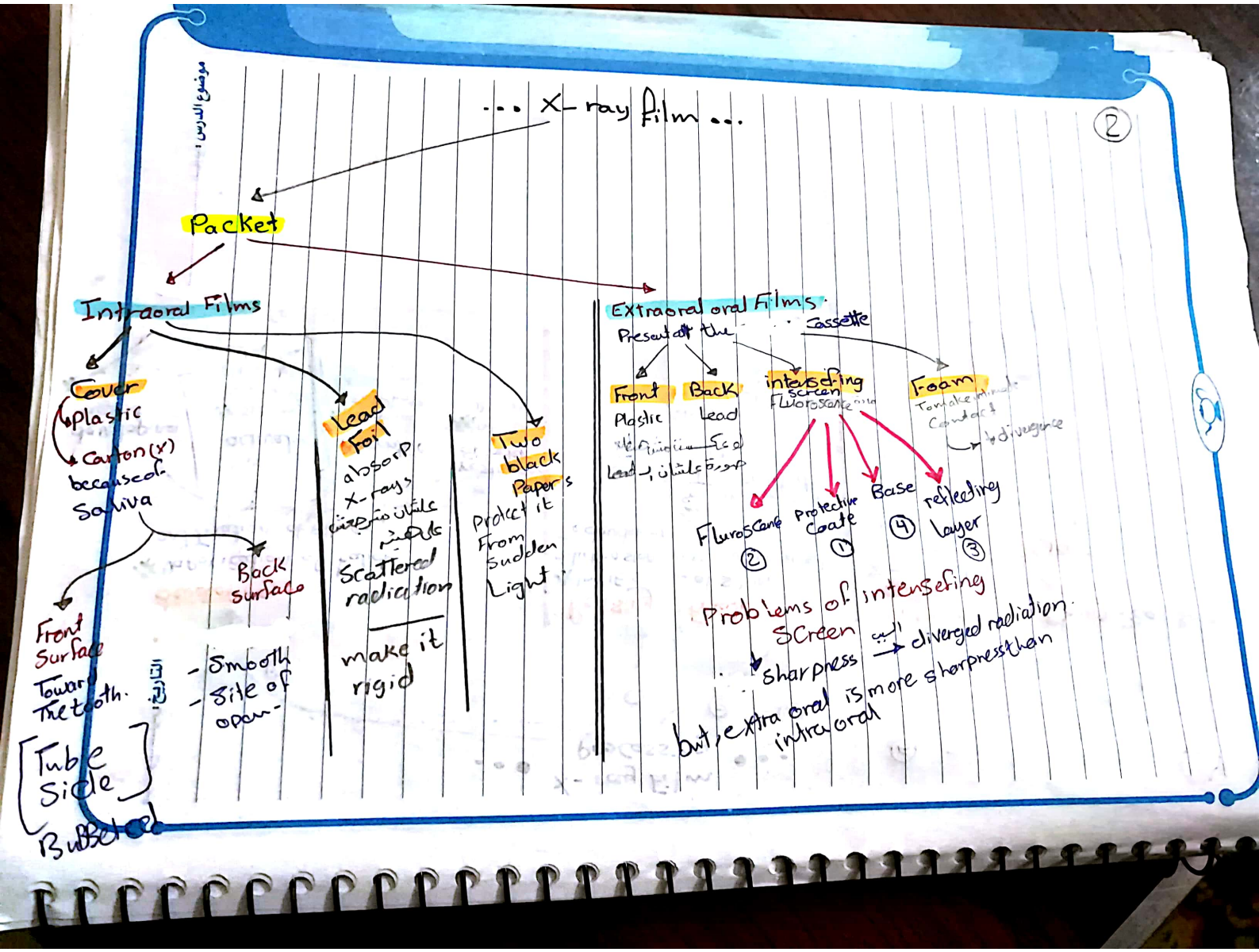

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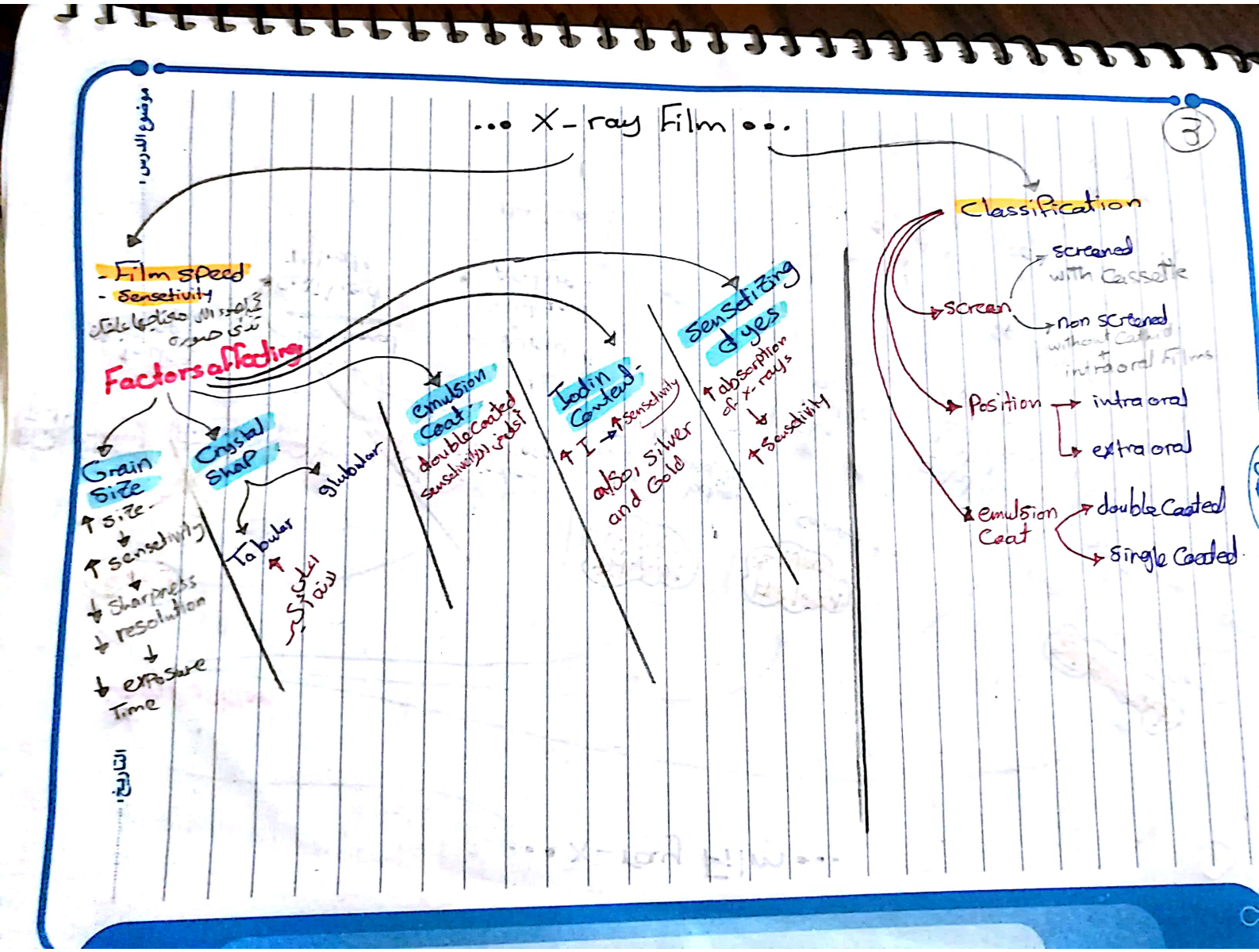

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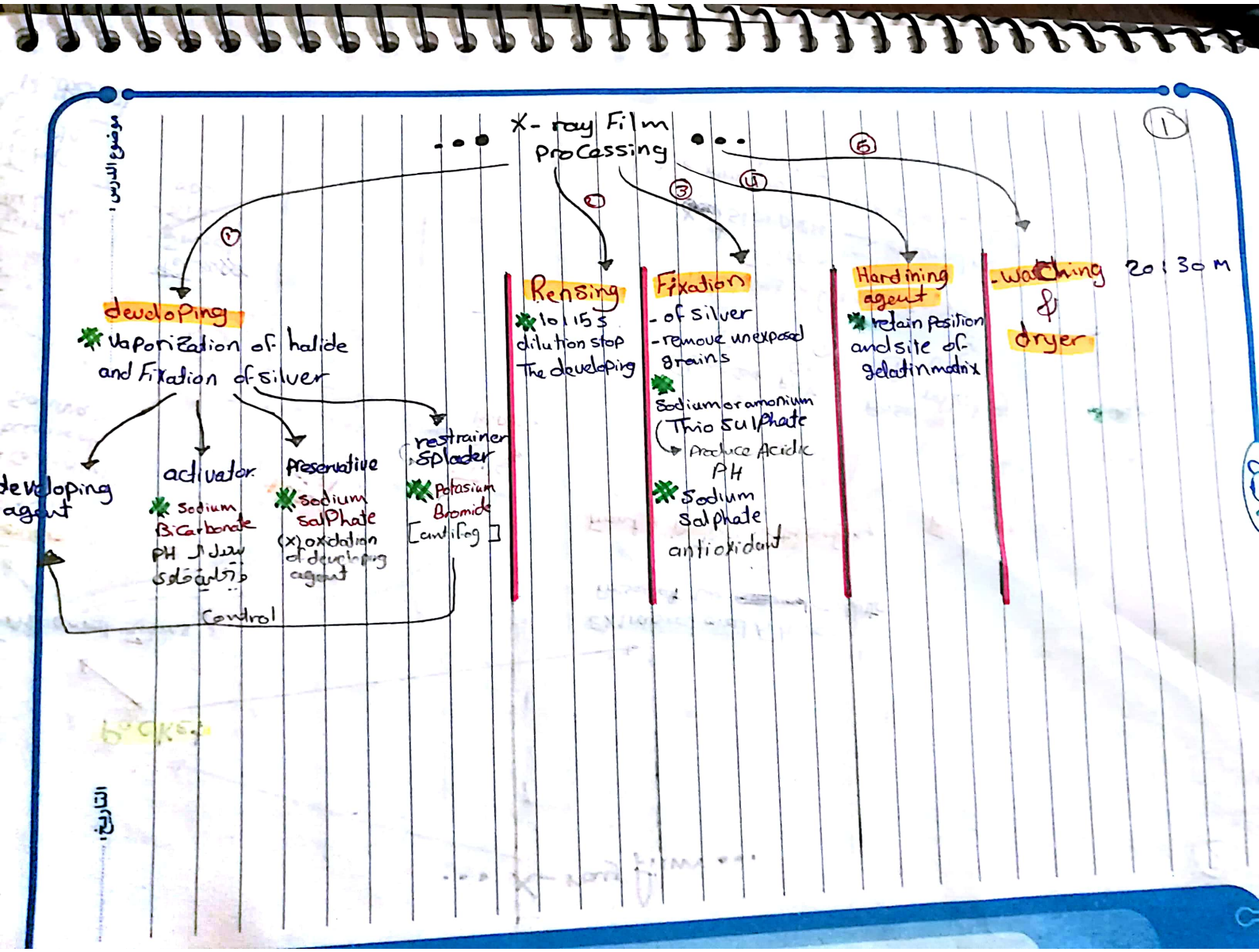

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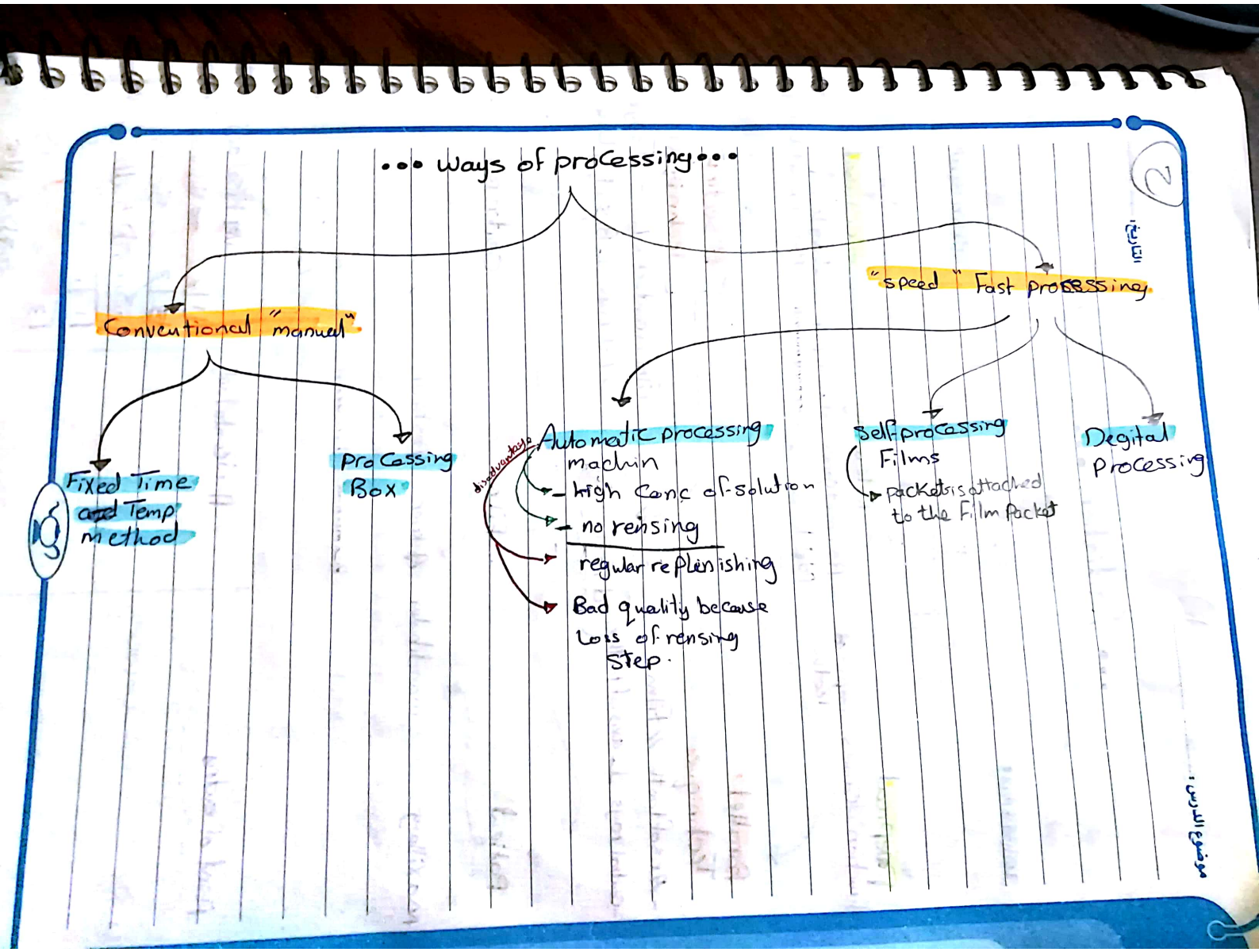

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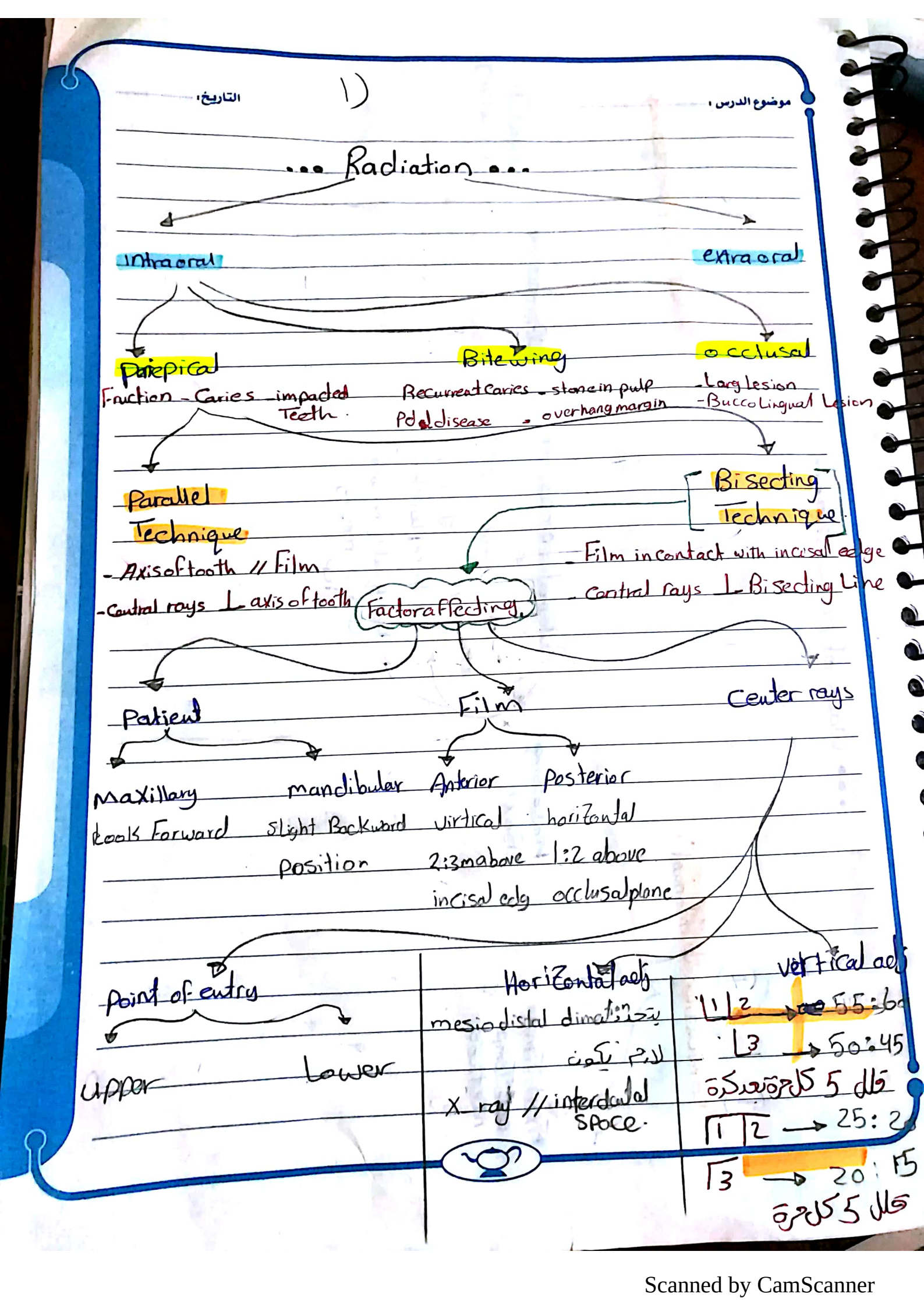

التاريخ:

1)

موضوع الدرس:

... Radiation ...

- Intraoral
  - Periepical
    - Fruction - Caries - impacted Teeth.
  - Bitewing
    - Recurrent caries - stone in pulp
    - Pd disease - overhang margin
- extraoral
  - occlusal
    - Larg lesion
    - Bucco Lingual Lesion

Parallel Technique

- Axis of tooth // Film
- Central rays ⊥ axis of tooth

Bisecting Technique

- Film in contact with incisal edge
- Central rays ⊥ Bisecting Line

Factor affecting

- Patient
  - Maxillary: Looks Forward
  - mandibular: Slight Backward position
- Film
  - Anterior: virtical 2:3 m above incisal edg
  - Posterior: horizontal 1:2 above occlusal plane
- Center rays
  - Point of entry
    - upper
    - Lower
  - Horizontal adj
    - mesiodistal dimation يتحدد
    - لازم يكون
    - X-ray // interdental space.
  - vertical adj
    - 1 | 2 → 55:60
    - 3 → 50:45
    - قلل 5 كل مرة بعد كرة
    - 1 | 2 → 25:20
    - 3 → 20:15
    - قلل 5 كل مرة

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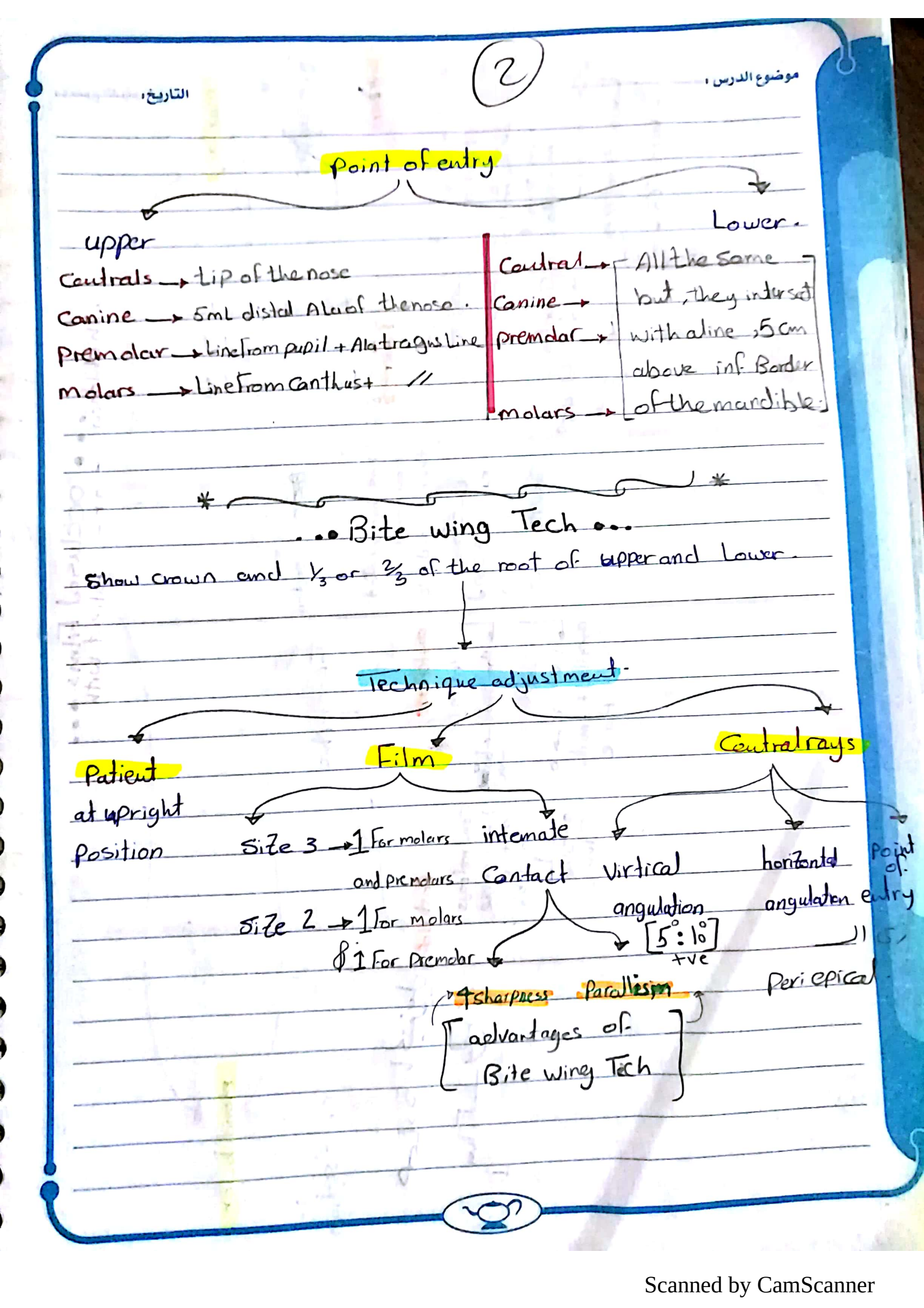


Point of entry

upper

- Centrals → tip of the nose
- Canine → 5mL distal Ala of the nose.
- Premolar → Line from pupil + Ala tragus Line
- Molars → Line from Canthus + //

Lower.

- Central → All the same
- Canine → but, they intersect
- premolar → with a line, 5 cm above inf. Border
- Molars → of the mandible.

... Bite wing Tech ...

Show crown and 1/3 or 2/3 of the root of upper and Lower.

Technique adjustment.

Patient

at upright position

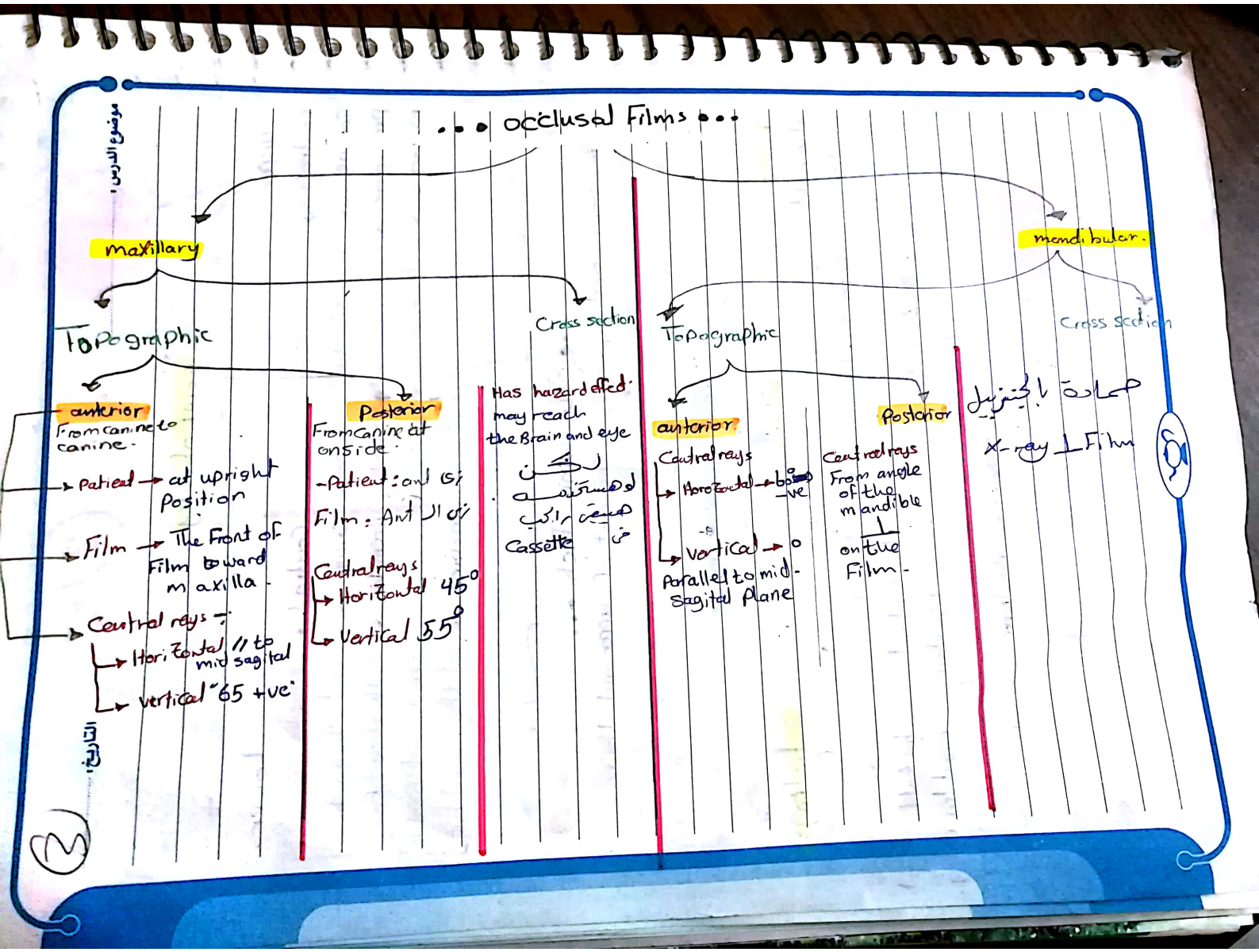
Film

- Size 3 → 1 For molars and premolars
- Size 2 → 1 For molars & 1 For Premolar
- intemate Contact
  - 4 sharpness
  - Parallism

[advantages of Bite wing Tech]

Central rays

- Virtical angulation [5° : 10°] +ve
- horizontal angulation
- Point of entry
  - Periepical



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موضوع الدرس : التاريخ :

ملحوظات رايقة :

Type of Final image :

1) diagnostic image → صورة رايقة اخد منها معلومات
2) Faint image → صورة الـ density بتاعها قليلة
3) Fogged image → صورة ضبابية "مشوهة" من الـ 2ry Radiation
4) Dark image → صورة الـ density بتاعها عالية جدا
5) Blank image → unexposed Film + Processing اتعمله
6) Blurred image → صورة بتكون لو "object, Film, Arm" اتحركوا اثناء التصوير

* ——————————————— *

Proper Collemation Filtration

under ← Proper Collemation → over

under ↓ Poor Contrast image

Proper Collemation Filtration ↓ diagnostic image

over ↓ Faint image نتيجة للـ Poor density

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التاريخ:

موضوع الدرس:

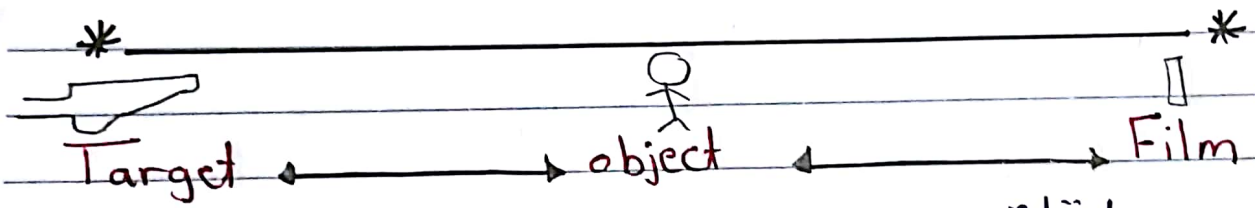
Low K.V.P → Poor density, Poor Contrast

proper K.V.P → Diagnostic image

high K.V.P → high density, high Contrast

Very high K.V.P → high density, Low Contrast

- because it has high penetration Power, it penetrat object



لو قلت ← يقل الـ Sharpness ← لو زادت ← يزيد الـ Sharpness

لو قلت → يزيد الـ Sharpness → لو زادت → يقل الـ Sharpness

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